



American Academy of Pediatrics

Breastfeeding

Residency Curriculum



Management of Common Breastfeeding Situations

Breastfeeding Residency Curriculum

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Breastfeeding Assessment

- Before being able to address common breastfeeding situations, the physician needs to assess breastfeeding by observing the infant feeding at the breast
- See *Basic Breastfeeding Assessment* presentation
- The following presentation discusses how to manage common breastfeeding situations and administer treatment to the breastfeeding dyad

Objectives

At the end of this presentation, the learner will be able to discuss:

- The normal course of establishment of breastfeeding and trouble signs
- Signs of adequate milk supply
- Common causes and management of reduced milk supply
- Normal pattern of weight gain in the breastfed infant
- Common causes and management for slow weight gain in the breastfed infant
- Common causes and management of sore nipples or poor latch, including inverted nipples

Prevention, Prevention, Prevention

- Prevention is the most effective way to deal with the management of low milk supply (real or perceived), sore nipples, and poor weight gain
- Understanding and being able to explain to mothers how normal breastfeeding is established is the key to prevention



Establishment of Breastfeeding — Hormonal Control

- Prolactin signals alveolar production of milk
- Oxytocin causes milk to be ejected into the duct system (“let down”)
- Feedback Inhibitor of Lactation (FIL) – small whey protein whose presence decreases milk production
- Effective, frequent emptying of the breasts is essential to milk production

Feedback Inhibitor of Lactation

Breast is full	Breast is emptier
Presence of FIL slows milk synthesis	Less FIL present speeds up milk synthesis

Establishment of Breastfeeding — Infant Role

- Healthy newborns should breastfeed within the first hour of life
- Newborns should feed 8–12 times per 24 hours
- Some normal patterns include:
 - Nursing almost continuously for several hours then sleeping for several hours
 - Breastfeeding every 30–40 minutes for approximately 10 minutes around the clock
 - Frequent feedings between 9 pm and 3 am
- Every infant and mother are different



TABLE 7-5. INFANT BREASTFEEDING STYLES

Attention to infant cues for feeding and the acceptance of a range of styles is helpful in optimizing breastfeeding.

Type	Description
Barracuda (or "Excited, effective")	Grabs the nipple and sucks energetically for 10 to 20 minutes
Excited Ineffective	Very eager and active at the breast, frustrated and crying when no milk results
Procrastinator ("Slow to start")	Waits until the milk appears before sucking, does well once started
Gourmet ("Slow feeder")	Licks and tastes little drops of milk before latch-on; attempts to hurry are met with vigorous infant protest
Rester ("Protracted feeder")	Prefers to breastfeed for a few minutes, then rest a few minutes, resulting in a longer than usual nursing time



Establishment of Breastfeeding — Maternal Role

- Teach mother infant feeding cues:
 - Rooting
 - Sucking movements or sounds
 - Putting hand to mouth
 - Rapid eye movement
 - Cooing and sighing
 - Restlessness
- Newborns feed 8–12 times every 24 hours
- The infant may need to be woken to feed



Establishment of Breastfeeding — Provider Role

- Discourage infant-mother separation and encourage breastfeeding within the first hour after birth
- Help with proper positioning and attachment
- Encourage rooming in and feeding on demand
- Educate mothers about:
 - Normal volume of colostrum
 - Number of times the infant should stool and void
 - When milk “comes in”
- Discourage supplementation
- Provide follow up 48–72 hours post-discharge

Establishment of Breastfeeding — Colostrum

- The first milk, colostrum, is rich in protein and antibodies
 - Neutrophils in colostrum promote bacterial killing, phagocytosis, and chemotaxis
- Small volume is normal:
 - 7-123 ml/day first day
 - 2-10 ml/feeding day 1
 - 5-15 ml/feeding day 2

Establishment of Breastfeeding — Colostrum (cont.)

- Colostrum stimulates intestinal peristalsis which decreases enterohepatic circulation, encouraging elimination of bilirubin
- Low volume of colostrum encourages frequent feedings, which encourages milk to “come in”

Establishment of Breastfeeding — When the Milk “Comes In”

- Mature milk consists of foremilk (high volume, low fat) and hindmilk (low volume, high fat)
- Typically “comes in” at 24-102 hours postpartum
- Requires effective and frequent milk removal in the first week of life

How do I know if the infant is breastfeeding effectively?

- Baby is content after feedings
- Audible swallowing during feedings
- Mother's nipples are not sore
- 3+ stools/day after day 1
- No weight loss after day 3
- Breast feels less full after feeding

How do I know when the milk has “come in”?

- 6+ wet diapers/day
- Yellow, seedy stools by day 4–5
- Breasts are noticeably larger and feel firmer and heavier
- Mother may begin to feel “let-down” reflex
- Breasts may leak between or during feedings

Nutritional Guidelines and Expectations

- Average milk intake per day at 1 month is 750-800 ml (range 440-1200+)
- Average weight loss of 7% at 72 hours (not to exceed 10% in term newborns)
- 15-30 g/day weight gain from day 5 to 2 months

Nutritional Guidelines and Expectations

- Normal timing to regain birth weight (by day 10)
- At least 3 BM's/day in first 4-6 weeks (after 6 weeks of life, one BM up to every 10 days is normal in an exclusively breastfed baby who is gaining weight normally)

TABLE 8-2. AVERAGE OF MEAN VALUES FOR PUBLISHED GAINS IN WEIGHT FOR HEALTHY EXCLUSIVELY BREASTFED INFANTS

<i>Interval (months)</i>	<i>Girls (g/d)</i>	<i>Boys (g/d)</i>
0–1	30	33
1–2	28	34
2–3	22	23
3–4	19	20
4–5	15	16
5–6	13	14
6–7	12	11
7–8	10	12
8–9	8	9
9–10	11	10
10–11	8	6
11–12	7	9

Adapted with permission from J Pediatr. 1994;124:32–39 and Pediatrics. 1992;89:1035.

Perception of Insufficient Milk Supply

- Very common (50% of breastfeeding mothers)
- Common cause for weaning
- Only about 5% of women will not produce adequate amounts of milk for their baby



Reasons a Mother May (Falsely) Believe her Milk Supply is Insufficient

- Lack of education about normal breastfeeding patterns and behavior
- Soft breasts
- Growth spurts that instigate need for frequent nursing
- The ease with which the infant eats from a bottle
- Inability to express large volumes of milk
- Does not experience let-down
- Frequently fussy infant
 - But gaining weight normally

Reassurance

- If the infant is gaining weight well and stooling and voiding appropriately
 - Reassure mother her milk supply is adequate
 - Discourage supplementation
 - Review normal patterns of breastfeeding, elimination, and weight gain

Causes of Decreased Milk Supply

- Anything that limits the infant's ability to extract milk effectively and frequently, such as:
 - Separation of mother and infant
 - Scheduled intervals between feedings
 - Poor latch
 - Early use of pacifiers
 - Prematurity

Causes of Decreased Milk Supply

- Supplementation with formula
- Delayed milk ejection secondary to
 - Stress
 - Pain
- Maternal medications (e.g., combination oral contraceptive)



Less Common Causes of Insufficient Milk Supply

- Maternal hypothyroidism
- Polycystic Ovarian Syndrome
- Previous breast surgery
- Breast hypoplasia
- Sheehan's Syndrome
- Retained placenta

Slow Growth as Indicator of Decreased Milk Supply

- Weight loss $> 10\%$ of birth weight
- Failure to return to birth weight by 2 weeks
- Average weight gain < 20 g/day between 2 weeks to 3 months of age



Other Causes of Slow Growth

- Ineffective feeding (which in turn, often causes decreased milk supply)
- Increased caloric demands (e.g., heart disease)
- Food allergy
- Gastroesophageal Reflux (or more rarely, pyloric stenosis)

Management of Slow Weight Gain

- Don't miss it!
- See the patient at 3-5 days of life or within 48–72 hours of discharge



Management of Slow Weight Gain (cont.)

- Obtain a complete medical history including:
 - Maternal history
 - Presence of breast enlargement during pregnancy
 - Birth history
 - Psychosocial stressors
 - Signs and symptoms of maternal or infant illness
 - Current feeding history and problems



Management of Slow Weight Gain (cont.)

- Complete physical exam including:
 - Mother's breasts and nipples
 - Infant oral-motor exam
 - Evidence of congenital anomalies
 - Evaluation of frenulum
- Observation of a feeding to look at:
 - Infant positioning
 - Latch
 - Infant suck
 - Refer to the Residency Curriculum, *Basic Breastfeeding Assessment* presentation for guidance



Management of Slow Weight Gain (cont.)

- Optimize positioning and latch
- Treat sore nipples
- Increase frequency of feeds
- Express/pump milk after feedings to ensure complete emptying of breasts
- Treat maternal or infant illness if present



Management of Slow Weight Gain — Supplementation

- If clinically indicated, supplementation may be necessary
- Supplement with expressed breast milk if possible
- Begin with only 1-2 oz after each feeding until milk production increases



Management of Slow Weight Gain

- Evaluate weight gain and breastfeeding every 2–4 days
- Once infant is gaining at least 20 g/day, can change to weekly visits until infant is above birth weight and following a consistent growth curve
- Other considerations include:
 - Supplemental feeding system
 - Supplementing with hind milk
 - Use of a galactagogue to enhance milk production

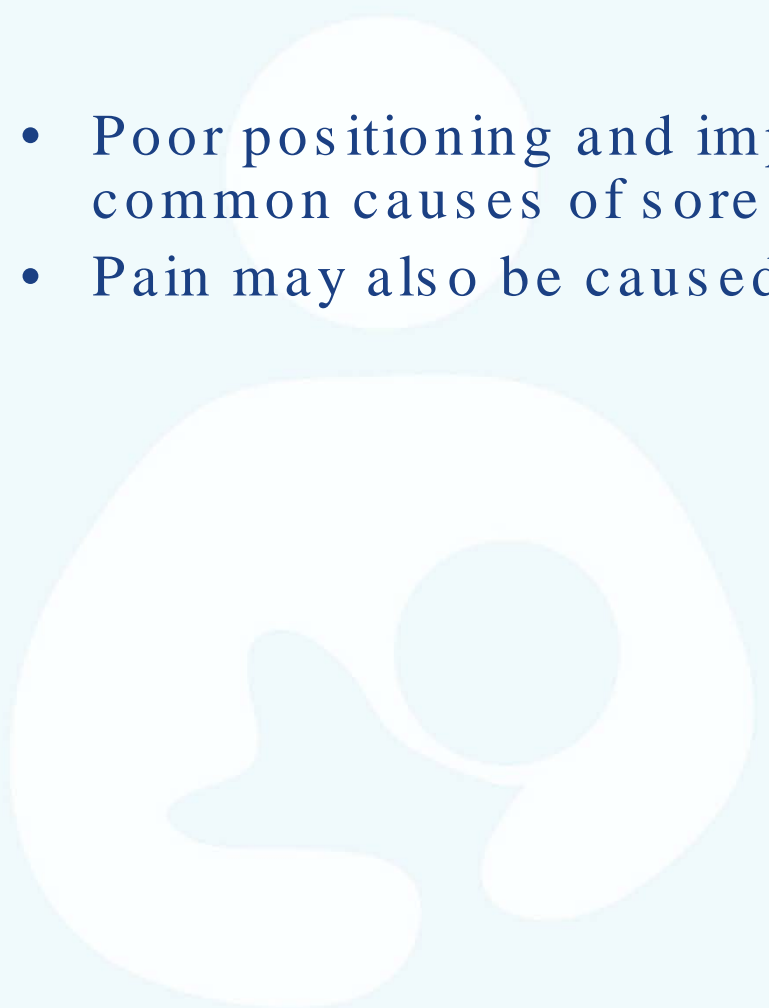
Sore Nipples

- Brief pain at the beginning of a feeding can be normal in the first week
- Severe pain, pain that continues throughout a feeding, or pain that persists beyond the first week is NOT normal



Sore Nipples

- Poor positioning and improper latch are the most common causes of sore nipples
- Pain may also be caused by yeast infection or mastitis

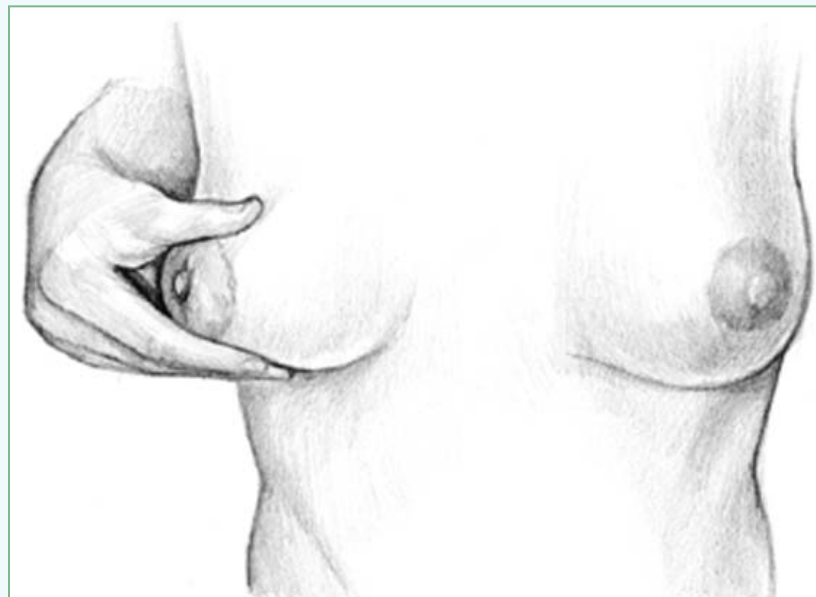


Sore Nipples and Low Milk Supply

- If caused by improper latch, baby may not be effectively emptying breast, leading to accumulation of Feedback Inhibitor of Lactation (FIL) and decreased milk supply
- Nipple pain can inhibit let-down reflex

Inverted Nipples

- True inverted nipples retract toward the breast when you press the areola between 2 fingers



Inverted Nipples

- 10% of women have congenital inversion of one or both nipples
- May be intermittent and may become erect with infant suckling alone
- May pump prior to feeding to draw nipple out
- Breast shells worn between feedings controversial

Treatment of Sore Nipples

- Ensure infant is well-positioned and latching on correctly — this may be all that is needed
- Apply breast milk to nipple and areola after feeding, allow to air dry, then apply medical-grade lanolin
- Use only water to clean breasts
- May use acetaminophen or ibuprofen for pain management

Treatment of Sore Nipples (cont.)

- If nipples are still sore, cracked, or bleeding, have mother begin breastfeeding on less affected side then switch to more affected side after let-down
- May use a nipple shield during feedings and/or a breast cup or shell between feedings
- Assess for ankyloglossia (tongue-tie)

Summary — Common Breastfeeding Situations

- Most common breastfeeding situations are preventable with proper breastfeeding assessment and care pre- and postnatally
- Those that are not preventable are often treatable and should not induce weaning
- Mothers should be educated pre- and postnatally about breastfeeding expectations and common preventable situations
- Physicians should be able to identify common breastfeeding situations and treat
- More complicated breastfeeding problems can be referred to a lactation specialist

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